

REMARKS/ARGUMENTS

Reconsideration of the application is requested.

Claims 1 and 4-26 are now in the application. Claims 1 and 12 have been amended.

Claims 23-26 have been added. Claims 2 and 3 had been previously canceled.

Support for the added claims is found in the original claims and in the specification. Specific reference is had to the translated specification, page 11, lines 11-20. There, applicants explain the main concept concerning the modular implementation of the device. One and the same housing may be used for several different types of fire detectors. This is expressed in the new claim 23, where we recite a housing and two (or more) mutually different detector modules. Each of the modules is recited as a separate component and the housing receives either the first module or the second module.

We have noted the Examiner's explanation – item 1, page 2 of the Office action – concerning the availability date of prior art in light of AIPA. We respectfully point out that the AIPA considerations do not apply to the primary reference Nishikawa et al. because the patent results from an international application that was filed well after November 29, 2000. In fact, we could easily remove Nishikawa's U.S. Patent as well as the publication US 2002/0158767 by perfecting our claim for priority to EP 02 013 657.8 of June 20, 2002. We will, however, accept Nishikawa US 6,552,664 B2 as a prior art reference, because the underlying international application was apparently published on Aug. 2, 2001.

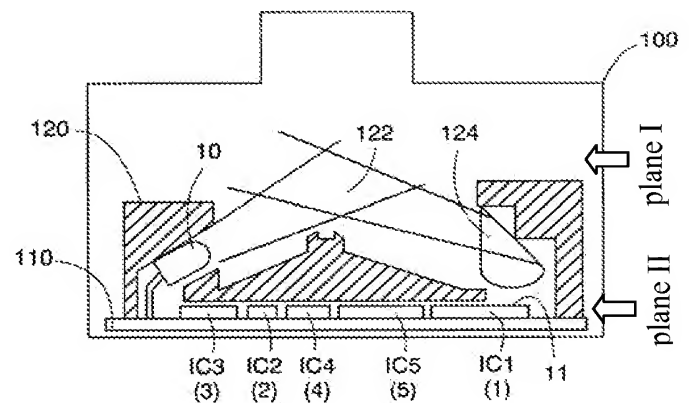
We now turn to the art rejection, in which claims 1, 4, and 21-22 have been rejected as being anticipated by Nishikawa et al. (US 6,552,664 B2, "Nishikawa") under 35 U.S.C. § 102.

Nishikawa represents a similar concept as the invention of the instant application. There, a variety of different types of fire detectors are produced on the same platform. Cost is reduced by using the same housing and the same power unit for the different types of detectors. The Nishikawa fire detector is not a modular system which allows different types of detection modules to be inserted into the housing. Instead, an otherwise identical system is populated with different sensors. Nishikawa does not have different detector modules (with a carrier plate) that can be inserted – as a complete module – into the fire detector housing.

More specifically with regard to claim 1: Applicants' claim 1 calls for, *inter alia*, the sensor arrangement and the access openings to be disposed in one plane.

This is clearly not the case in the

Nishikawa assembly. As shown in Fig. 1, the diffusion region 122 is located well above (i.e., below in the case of a ceiling assembly) the remaining components – marked "plane I". As apparently interpreted by the Examiner, the "sensor arrangement" of Nishikawa is represented by the chips IC1, IC2, IC3, etc., which are disposed on a different level – plane II – from the light diffusion region. While the air access openings are not shown by Nishikawa, it is entirely clear that they would be located somewhere on an even level with the light diffusion region 122 in plane I (or



above, in the face of the detector housing). Nishikawa's light source 10 points upward, away from the sensor arrangement, and the prism 124 is disposed to project the diffused light back downward to the level of the IC1 which contains the photo-diode 11.

Claim 1 of the application calls for "*the sensor arrangement and the access openings are arranged substantially in one plane.*" Alone for this reason, Nishikawa does not anticipate claim 1.

Claim 21 calls for each of the "different types of detector modules" to have an identical carrier plate which is insertible into the housing. Nishikawa does not have the modular construction of the claimed invention. The reference does not have different types of detector modules. Alone for this reason, Nishikawa does not anticipate claim 21.

Claim 23 takes this concept even further. Here, we claim a "first detector module" and a "second detector module." The two modules represent different types of fire detectors. For example, as recited in claim 25, the first module is an optical sensor assembly for detecting smoke and the second module is a heat sensor. According to claim 26, the first module represents a multi-functional sensor with smoke-detecting and heat-sensing capabilities.

Nishikawa does not have different detector modules. Nishikawa certainly does not have two (or more) different modules that can be selectively inserted into the fire detector housing.

As explained above, Nishikawa does not provide for the modularity of the assembly. As such, the reference cannot render the claimed invention obvious either.

Turning now to the obviousness rejections, claims 5-6, 8-13, and 18-20 have been rejected as being obvious over Nishikawa and claims 7 and 14-17 have been rejected as being obvious over Nishikawa and Rattman et al. under 35 U.S.C. § 103. We respectfully traverse on the basis of the claims, as amended.

Nishikawa lacks the teaching towards a “flat” fire detector. As pointed out above with reference to the inserted drawing from Nishikawa, the fire detector of the prior art has a “vertical” deflection of the optical path from the light source upward to “plane I” and then back down to the sensor diode in plane II. The result, of course, is a different fire detector from one where the sensors and the air intake openings are disposed substantially on the same level. Further, Nishikawa also does not provide a suggestion towards the modular configuration of the claims.

The shortcomings of the primary reference are also not overcome with the secondary reference Rattman et al. The secondary reference was cited for the labyrinth system. While the teaching is acknowledged, we submit that the secondary reference does nothing to modify the primary reference towards the “modular” concept of the claimed invention.

In summary, none of the references, whether taken alone or in any combination, either show or suggest the features of claims 1, 21, or 23. These claims are,

therefore, patentable over the art and since all of the dependent claims are ultimately dependent thereon, they are patentable as well.

In view of the foregoing, reconsideration and the allowance of claims 1 and 4-26 are solicited.

Petition for extension is herewith made. The extension fee for response subsequent to the shortened statutory period of pursuant to Section 1.136(a) and in accordance with Section 1.17 is being submitted herewith. We also submit the fee for the additional claims together with the filing fee for the concurrently filed Request for Continued Examination. Please charge any other fees which might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner Greenberg Sterner LLP, No. 12-1099.

Respectfully submitted,

/Werner H. Sterner/
Werner H. Sterner
(Reg. No. 34,956)

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Lerner Greenberg Sterner LLP
P.O. Box 2480
Hollywood, Florida 33022-2480
Tel.: 954-925-1100
Fax: 954-925-1101